

### Savannah River National Laboratory

# factsheets

# **Quick Facts**



Disposition of legacy materials



Tools and techniques to support local and federal law enforcement, national defense, and homeland security

Savannah River National Laboratory (SRNL) puts science to work to create and deploy practical, high-value, cost-effective technology solutions.

As the applied research and development laboratory at the U.S. Department of Energy's (DOE) Savannah River Site (SRS), SRNL serves the DOE and the nation, helping customers at SRS, throughout DOE, in other federal agencies, and across the country. The laboratory was established in 1951; in 2004, in recognition of the laboratory's service to the nation, it was designated as the country's 12th National Laboratory.

SRNL enables its customers to achieve success through an unwavering commitment to

Safety – the best safety record of any DOE laboratory Security – stellar record of protecting the nation's interest Quality – technology solutions that work

The laboratory serves the nation in three major program areas:

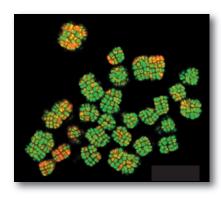
#### **Energy Security**

- Hydrogen technology Technologies needed to make the wide-spread use of hydrogen practical for powering our automobiles, homes and industry, including:
  - Advanced hydrogen storage technologies that are safe, lightweight and cost-effective
  - Clean methods for producing hydrogen, including production in a nuclear reactor

#### National and Homeland Security

- Tritium technology Research and development for continuous improvement of the processes that maintain the nation's supply of tritium (the radioactive form of hydrogen used in national defense)
- Nuclear materials technology Research and development into the safe handling and disposition of plutonium and spent nuclear fuel to advance the nation's nuclear nonproliferation goals
- Homeland security Technologies, training and consultation for a variety of national, regional and local homeland security and law enforcement needs
- Nuclear forensics
- Monitoring and detection capabilities for nuclear nonproliferation

#### **SRNL Quick Facts**



Kineococcus radiotolerans, radiationresistant bacteria studied by SRNL for its potential remediation capabilities



Expertise in mass spectrometry, scanning electron microscopy, and energy dispersive x-ray spectroscopy

## CONTACT

Angeline French SRNL Public Affairs

Savannah River National Laboratory

Savannah River Site Aiken, SC 29808

Phone: 803-725-2854

Email:

angeline.french@srnl.doe.gov

#### **Environmental and Chemical Process Technology**

- Cleanup technology Technologies for cleaning chemical and radiological contaminants from the soil and water, including
  - A wide range of tools that match the aggressiveness of the cleanup technology to the level of contamination
  - Use of naturally occurring microorganisms to break down or isolate contaminants
  - Techniques that harness and measure nature's own decontamination abilities
- Hazardous materials disposition Technologies to safely store, stabilize, treat
  and permanently dispose of all types of waste, including low- and high-level
  radioactive waste, such as
  - Technologies to immobilize high-level radioactive waste in a safe, stable glass form, suitable for long-term disposition
  - Technologies for immobilizing nuclear materials in cement, safely isolating them from the environment
  - Technologies for separating complicated materials into their constituent ingredients, so that each can be treated in the most efficient method

#### Expert staff

Includes total employment of approximately 870

- Research staff of approximately 670, approximately 25% of whom hold PhDs
- Includes chemists, physicists, biologists, microbiologists, mechanical engineers, chemical engineers, nuclear engineers and a variety of other scientists, engineers and technicians

Expertise in a range of core competencies:

- Hydrogen and Tritium Science and Technology
- Chemical and Radiochemical Processing
- Environmental Science and Biotechnology
- Engineered Specialty Systems
- Materials Science
- Analytical Chemistry
- · Computational Science and Modeling
- Sensor Development

